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10/598,918	05/22/2007	Henrik Glent-Madsen	QUE004 P326	2045

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EXAMINER	
CRUZ, MAGDA	
ART UNIT	PAPER NUMBER
2878	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,918	GLENT-MADSEN, HENRIK	
	Examiner	Art Unit	
	MAGDA CRUZ	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-76* is/are pending in the application.

4a) Of the above claim(s) *35-67* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34,68 and 71-76* is/are rejected.

7)☒ Claim(s) *5,6,69 and 70* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/14/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 35-67 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the election requirement in the reply filed on 07/19/2010.

2. Applicant's election with traverse of Species I (i.e. claims 1-34 and 68-76) in the reply filed on 07/19/2010 is acknowledged. The traversal is on the grounds that "the eight-way species election entered by the Examiner is deemed excessive, since there is no apparent serious burden on the Examiner if the restriction is not required". This is not found persuasive because a total of 76 claims are considered a serious burden on the Examiner. Furthermore, Species I-VIII are not equivalent species; therefore, the election of species is proper.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8-34 and 76 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Regarding claims 8, 10, 17, 24, 26-27 and 76, the word "means" is preceded by the word(s) "variable attenuation" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

b. Regarding claims 10-25, 28-33 and 76, the word "means" is preceded by the word(s) "attenuation control" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

c. Regarding claims 28-32, the word "means" is preceded by the word(s) "multilevel variable attenuation" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

d. Claims 9, 34, 72 and 73 fall with parent claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 7, 68, 71 and 76 are rejected under 35 U.S.C. 102(b) as being anticipated by Taboada.

Taboada (US Patent Number 4,443,696) discloses:

- Regarding claim 1, establishing a light beam by means of a light source (Figure 1, element 12) and controlling an attenuation of said light beam (Figure 1, element 14) on the basis of occurrences of luminous intensity peaks in said light beam (column 4, lines 46-50).
- Regarding claim 2, luminous intensity peaks occur periodically (column 2, lines 40-42).
- Regarding claim 3, luminous intensity peaks may at least within a particular time interval be considered of substantially equal magnitude (column 2, lines 23-28).
- Regarding claim 7, attenuation is achieved by means of a variable attenuation means (column 4, lines 46-50).
- Regarding claim 68, the luminous intensity of said established light beam with substantially constant luminous intensity is completely constant (column 2, lines 23-28).

- Regarding claim 71, the light source is a short arc lamp (column 2, line 11).
- Regarding claim 76, a light source (Figure 1, element 12), establishing a light beam (Figure 1, element 14) a variable attenuation means, and an attenuation control means (column 3, lines 33-38); wherein said light beam is moderated substantially constant luminous intensity (column 2, lines 23-28).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taboada.

Taboada (US Patent Number 4,443,696) discloses that the control signal generator is capable of controlling time variations (column 2, lines 23-28), therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Taboada's invention for the purpose of controlling the light beam to a particular time interval (column 2, lines 15-28).

9. Claim 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taboada in view of Tracy.

Taboada (US Patent Number 4,443,696) in view of Tracy (US Patent Number 4,804,978) teach the salient features of the present invention as explained above, except a light modulating arrangement used for photolithography.

Tracy (US Patent Number 4,804,978) discloses a light modulating arrangement used for photolithography (column 1, lines 56-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a light modulating arrangement used for photolithography as shown by Tracy in combination with Taboada's invention for the purpose of controlling precisely the exposure dose in photolithographic systems using pulsed light sources (Tracy, column 1, lines 56-58).

10. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taboada.

Taboada (US Patent Number 4,443,696) discloses an intensity control system that modulates the light in the form of a variable density filter wheel which intercepts the beam of light emanated from the light source (column 2, lines 12-15). It is well know in the art that an image projection system comprises light modulating arrangements like the one disclosed by Taboada, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Taboada's invention for the purpose of effectively controlling the intensity of light independently of the energy source (column 2, lines 3-6).

Allowable Subject Matter

11. Claims 5-6, 8-34, 69-70 and 72-73 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

a. Regarding claim 8, the prior art of record neither shows nor suggests a method for establishing a light beam whereby variable attenuation means is capable of applying at least two different levels of attenuation to said light beam.

b. Regarding claim 69, the prior art of record neither shows nor suggests a method for establishing a light beam whereby the luminous intensity of said established light beam with substantially constant luminous intensity is constant within a tolerance of ± 50%.

13. Claims 8-34 and 69-70 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Komazawa et al. (US Patent Number 5,210,657) disclose an optical attenuator apparatus.

Hutton (US Patent Number 5,829,868) teaches a high intensity lighting projectors.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAGDA CRUZ whose telephone number is (571)272-2114. The examiner can normally be reached on Monday through Friday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MC/
September 29, 2010

/Georgia Y Epps/
Supervisory Patent Examiner, Art Unit 2878